Montgomery Park Business Center

Green Roof Project

Restoration at the Watershed Level

Location: **Montgomery Park Business Center**
Baltimore, MD
Gwynns Falls watershed

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Through the installation of a 20,000 square foot Green Roof over a former train shed, this project aims to reduce stormwater and nutrient runoff into the Gwynns Falls watershed, as well as reduce the overall roof surface temperature of the Montgomery Park Business Center.

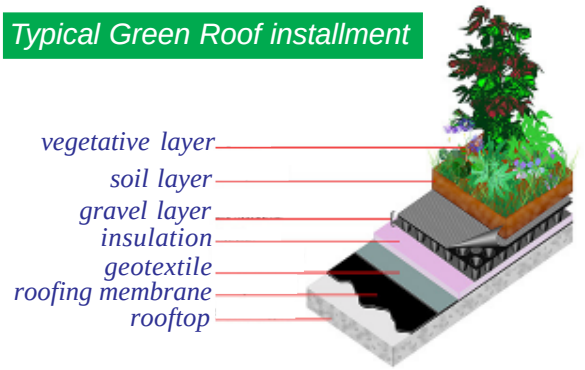
A Green Roof installment generally consists of vegetation, soil, gravel, insulation, and geotextile layers which replace impervious surface cover (see below). Green Roofs also offer aesthetic and air quality benefits in densely populated urban areas.

The Baltimore City Department of Recreation and Parks is dedicated to showcasing Green Roofs as an innovative method for improving water quality in an urban watrershed.

Implementing and demonstrating Green Roofs in Baltimore goes hand-in-hand with the city's Heat Island Initiative and Forestation Program, as well as satisfying Maryland State goals of Smarth Growth, Green Buildings, and the Chesapeake Bay Agreement.

Monitoring is planned to evaluate the roof surface temperature and runoff volume generated from the Green Roof compared to a flat roof on the main building. Maryland DNR's Watershed Restoration Division is responsible for monitoring the effectiveness of the installation.

Typical Green Roof installment



source: www.americanwick.com

Montgomery Park Business Center train shed roof prior to Green Roof installation.

Green Roof construction and plantings in growth phase on former train shed.

Maryland DNR biologist monitors temperature and nutrient output from the Green Roof.

GOALS & OBJECTIVES

- Installation of 20,000 square feet of Green Roof coverage at Montgomery Park Business Center.
- Reduce runoff by 50% to 75% on average rain events; and reduce surface temperature of roof area which decreases the urban heat island effect.
- Raise awareness of the relationship between impervious surface cover and water quality.